# **Board Whitepaper**



# Don Addon 5 RGB

# General Description

Rev.1.1 2022-01-14

Don Addon 50 RGB applies to below Riverdi HB, IPS 5.0" RGB series:

PRODUCT NAME	DESCRIPTION
RVT50HQTNWN00	HB, IPS, 5.0", 1000cd/m², RGB, No touch panel
RVT50HQTFWN00	HB, IPS, 5.0", 1000cd/m², RGB, No touch panel, Metal frame
RVT50HQTNWC00-B	HB, IPS, 5.0", 850cd/m², RGB, uxTouch, Optical bonding
RVT50HQTNWC00	HB, IPS, 5.0", 800cd/m², RGB, uxTouch, Air bonding
RVT50HQTNWCA0	HB, IPS, 5.0", 800cd/m², RGB, aTouch, Air bonding
RVT50HQTFWCA0	HB, IPS, 5.0", 800cd/m², RGB, aTouch, Air bonding, Metal frame



# 1. REVISION RECORD

REV NO.	REV DATE	CONTENTS	REMARKS
1.0	2021-10-25	Initial Release	
1.1	2022-01-14	Updating the product photos	



# 2. CONTENTS

l.	REVISION RECORD	2
2.	CONTENTS	3
3.	INTRODUCTION	4
4.	GENERAL DESCRIPTION	4
5.	MODULE DRAWING	5
6.	MECHANICAL FUNCTIONS	6
7.	ELECTRICAL FUNCTIONS	8
8.	HOW TO USE	8
9.	SUMMARY	8
10.	LEGAL INFORMATION	9



### 3. INTRODUCTION

The aim of this document is to present the general idea and functions of the device presented. Don Addon 5 RGB is a hardware connection between Riverdi STM32 Evaluation Board and the TFT display, turning three separate items into one working unit.

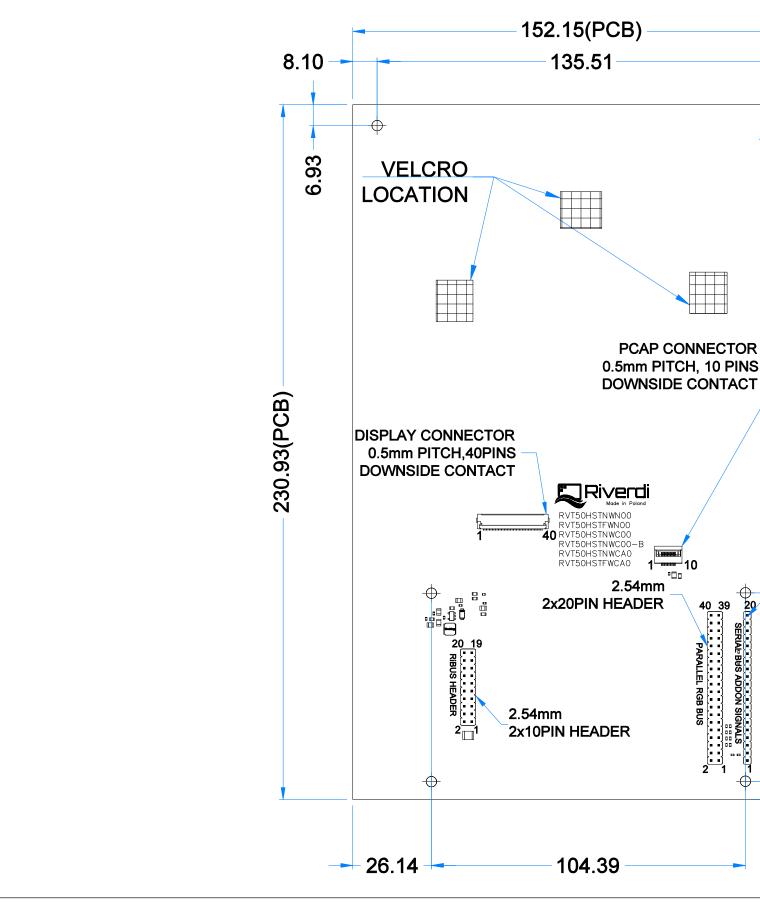
### 4. GENERAL DESCRIPTION

This Don Addon board is the hardware interfacing device that provides the necessary connection between TFT and STM32 Evaluation Board.

Because of the rich offer of TFT modules from Riverdi and the necessity to ensure seamless cooperation between different TFT modules and ONE type of STM32 Evaluation Board, there must be different, customized versions of Don Addon board, to make it possible to use many modules differing in size, signal connectors and mechanical builds, together with ONE universal controller – STM32 Evaluation Board

One of the purposes for building Don Addon board was to put developers' world in order.

Another one was to prepare and demonstrate the working TFT modules at various presentations and exhibitions.



### **GENERAL NOTES:**

- 1. WITHOUT INDIVIDUAL TOLERANCE: ±0.3mm
- 2. RoHS3 COMPLIANT



### 6. MECHANICAL FUNCTIONS

- 1. The Don Addon 5 RGB is a stable mechanical base for three components:
- STM32 Evaluation Board
- Riverdi HB, IPS 5.0" RGB TFT display
- Don Addon 5 RGB itself

Mechanical stability of the above devices fixed together protects delicate TFT connectors against breaking, tearing off and wearing out due to frequent connecting and disconnecting.

2. The Don Addon board is designed in a way that allows the use of all three components in horizontal and vertical positions.

The horizontal position is particularly useful during development. It gives a secure access to STM32 Evaluation Board measuring terminals and other circuitry points desired by a developer.

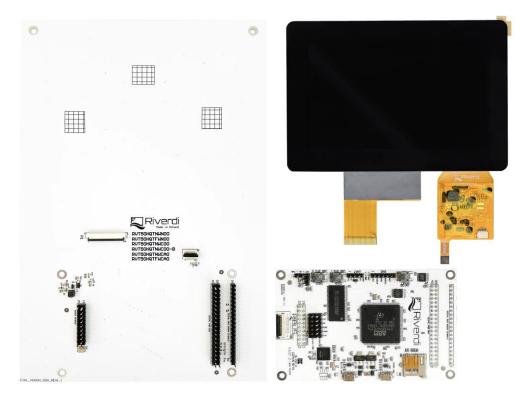
The vertical position allows for hanging the entire working unit on a vertical post for exhibiting purposes and for drawing visitors' attention.

A TFT module is fastened to the Don Addon board with velcro tapes in four places: close to the module's corners. Using velcro tapes between the Don Addon board and the TFT ensures:

- Relatively high fastening strength that makes sure the TFT connectors are safe from mechanical damage in both positions (horizontal and vertical),
- Relative ease of changing the TFT modules whenever necessary.



The picture below shows all three listed components separately, before being assembled into one unit:



The picture below shows the same three components assembled and connected into one device:





### 7. ELECTRICAL FUNCTIONS

- 1. The Don Addon board generates all the voltages necessary for the TFT display to operate properly.
- 2. The Don Addon board generates the power necessary for backlight in the TFT module to operate properly.

### 8. HOW TO USE

Please refer to the User Manual of the STM32 Evaluation board on how to use the assembled unit.

User Manual Download Link: https://riverdi.com/product/stm32-evaluation-board/

### 9. SUMMARY

If this document has made you interested in knowing more about Riverdi products, please visit Riverdi website: <a href="https://riverdi.com/">https://riverdi.com/</a>



## 10. LEGAL INFORMATION

This document has been issued for informational purposes only. It can be updated or altered without any written notice. Riverdi cannot be held responsible for not announcing any changes or issuing next revisions or versions of this document.



# **X-ON Electronics**

Largest Supplier of Electrical and Electronic Components

Click to view similar products for LED Backlighting category:

Click to view products by Riverdi manufacturer:

Other Similar products are found below:

SSB-COB7540GW SSB-DL6528SRW SSB-CEL8040UWW 8718696543603 8718696711033 0025 INT NATURAL BLUE 0100 INT CLASSIC GLACIER WHITE 0100 INT EXTREME ORANGE 0100 INT NATURAL BLUE 0200 INT EXTREME BLUE GREEN 30531 30565 30586 30588 30589 30590 4052899326453 JDR20W38 E14 JDR50W38 GU10 44870WFL MR16 60ST 20W 64695 ECO 64698 ECO 64701 ECO 64702 ECO 64760 SL2CD SKU 165 SKU 167 SKU 193 SKU 194 SKU 203 4052899973428 8718696497586 8718696537015 8718696728291 8718696728352 8718291787051 8727900964073 8727900964271 8727900964295 8727900964479 8727900964516 8727900964875 DSD 1000 DSD 2000 EA LED40X33-ERW EB8004 EB8005 EB8006